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STRAWBERRY PLANT NAMED 'DRISCOLL JUBILEE'

1. BACKGROUND OF THE INVENTION

The new variety originated as a result of a controlled cross between the strawberry plants '50C130' (unpatented variety) and '19A331' (unpatented variety) in an ongoing breeding program, and was discovered as a seedling in Kent, England in 1999. The original seedling of the new cultivar was asexually propagated by stolons in a Nursery in Kent, England. Propagules were transplanted to a controlled breeding plot in Monterey, California, where the variety was identified and selected for further evaluation. 'Driscoll Jubilee' was subsequently asexually propagated and underwent further testing in Monterey, California for one year. This propagation and testing has demonstrated that the combination of traits disclosed herein which characterize the new variety are fixed and retained true to type through successive generations of asexual reproduction.

1.1 LATIN NAME OF THE GENUS AND SPECIES OF THE PLANT CLAIMED

The variety is botanically identified as *Fragaria x ananassa*.

1.2 VARIETY DENOMINATION

The strawberry variety denomination is 'Driscoll Jubilee'.

20 2. SUMMARY OF THE INVENTION

The present invention relates to a new and distinct variety of strawberry named 'Driscoll Jubilee.' The variety is botanically identified as *Fragaria x ananassa*. The new variety is distinguished from other varieties by a number of characteristics as set forth in Tables 1-4.

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3. COMPARISON TO SIMILAR VARIETIES

The varieties which we believe to be similar to 'Driscoll Jubilee' from those known to us are 'Driscoll Camarillo' (U.S. Plant Patent Application Serial No. 10/077,153) and 'Driscoll Coronation' (U.S. Plant Patent Application Serial No. 10/619,692). There are 30 several characteristics of the new variety that are different from, or not possessed by

'Driscoll Camarillo' and 'Driscoll Coronation'. The new variety has a smaller spread of plant, conic shaped fruit of greater length than width, thinner stolons, red and white internal fruit color, the shape of the base of the terminal leaflets is acute, and the inflorescence is beneath the foliage. The internal fruit color of 'Driscoll Jubilee' and 'Driscoll Camarillo' 5 comprises a white color interspersed in a striped manner among the orange-red or red color described for each variety. Each color described for the internal fruit color of 'Driscoll Camarillo' and 'Driscoll Jubilee' is individually present in the internal fruit tissues. In contrast, the internal fruit color of 'Driscoll Coronation' is whitish.

'Driscoll Jubilee' is distinguished from its maternal parent '50C130' by its smaller 10 fruit size, firmer flesh, and its fully everbearing habit. 'Driscoll Jubilee' is distinguished from its paternal parent '19A331' by its redder external fruit color, firmer flesh, and sweeter taste.

4. BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying photographs show typical specimens of the new variety, 15 including fruit, foliage and flowers, in color as nearly true as it is reasonably possible to make in color illustrations of these characteristics.

Fig. 1 shows the whole the plant.

Fig. 2 shows the upper side of the leaves of the plant

Fig. 3 shows the under side and underside of the flowers.

20 Fig. 4 shows the fruit in longitudinal cross-section.

Fig. 5 shows a close-up of the fruit.

5. DESCRIPTION OF THE NEW VARIETY

The following detailed description of the new variety is based upon observations 25 taken of plants and fruit grown in Monterey County, California, U.S.A. This description is in accordance with UPOV terminology. Observations of 'Driscoll Jubilee', 'Driscoll Camarillo' and 'Driscoll Coronation' were taken in side by side comparison in the year 2002. Plants for observation were harvested from a low elevation nursery in Tehama County California in December 2001, and held in refrigerated storage until planting in 30 Monterey, County California in March 2002. Plants were grown in raised beds of soil under conditions typical of commercial strawberry production along the central coast of California. Fruits were harvested twice weekly for yield determination from May to October 2002. Measurements of plant, flower, and fruit characteristics were made in

August 2002, approximately five months after planting. Color designations, color descriptions, and other phenotypical descriptions may deviate from the stated values and descriptions depending upon variation in environmental, seasonal, climatic and cultural conditions. Colors are described and the most similar color designations are provided from 5 the Royal Horticultural Society (RHS) Colour Chart.

5.1 PROPAGATION

The new variety is principally propagated by way of stolons. Although propagation by stolons is presently preferred, other known methods of propagating strawberry plants 10 may be employed.

5.2 CHARACTERISTICS OF THE NEW VARIETY

Information on the new variety is presented in Tables 1, 2, 3 and 4. In the tables, the flowers described are secondary flowers except where indicated. The fruit described is the 15 secondary fruit on five month old plants. Fruit and flower measurements are an average of both primary and secondary fruit and flowers.

Table 1 provides information on the plant and fruit characteristics of the new variety 'Driscoll Jubilee' compared with characteristics of 'Driscoll Camarillo' and 'Driscoll Coronation.' Table 2 provides additional information of the plant and fruit characteristics 20 of the new variety 'Driscoll Jubilee' compared with characteristics of the varieties 'Driscoll Camarillo' and 'Driscoll Coronation.' Table 3 provides reactions of the new variety to stresses, pests and diseases compared with reactions of the varieties 'Driscoll Camarillo' and 'Driscoll Coronation.' Table 4 provides isozyme characteristics of the new variety as compared to that of the varieties 'Driscoll Camarillo' and 'Driscoll Coronation.'

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TABLE 1

QUANTITATIVE COMPARISON OF 'DRISCOLL JUBILEE',
'DRISCOLL CAMARILLO,' AND
'DRISCOLL CORONATION'

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Plant Characteristics	'Driscoll Jubilee'	'Driscoll Camarillo'	'Driscoll Coronation'
Height of plant (cm)	18.3	20.5	17.0
Spread of plant (cm)	30.7	39.4	33.2
Number of crowns	3.5	3.0	3.0

Leaf Characteristics

Terminal leaflet length (cm)	6.9	8.4	7.9
Terminal leaflet width (cm)	6.7	8.5	7.4
Terminal leaflet length/width ratio	1.04	0.99	1.07
# Teeth/terminal leaflet	20.1	27.0	24.3
Color of upper side	147A dark green	147A dark green	147A dark green
Color of under side	138B light to medium green	147C light green	139C light to medium green
Petiole length (cm)	15.8	16.8	16.2
Petiole color	145A	145A	145A
Bract frequency	42% typically double	67% typically double	25% typically double
Stipule length (cm)	3.1	4.0	3.3
Stipule width (cm)	1.0	1.0	0.8

Flower Characteristics

Petal length (cm)	1.12	1.13	0.96
Petal width (cm)	1.17	1.29	0.93
Petal length/width Ratio	0.96	0.88	1.03
Flower diameter (cm)	2.92	3.17	2.55
Calyx diameter (cm)	2.65	3.09	2.51
Average Fruiting truss length (cm)	27.7	33.2	24.2
Petal color (cm)	155C	155C	155C

Fruit Characteristics

Fruit length (cm)	3.8	3.8	3.9
Fruit width (cm)	3.4	3.9	3.9
Fruit length/width ratio	1.10	0.97	0.99
Average berry weight (g)	19.8	20.7	20.0
External color	45A red	42A red	45B red
Internal color	43A - 155B red and white	33A - 155C orange red and white	159D whitish
Achene coloration	184A to 4A	184B to 4B	184A to 8B
Yield (g/plant)	600	1200	850

TABLE 2

**QUALITATIVE COMPARISON OF 'DRISCOLL JUBILEE', 'DRISCOLL CAMARILLO,' AND
'DRISCOLL CORONATION'**

	'Driscoll Jubilee'	'Driscoll Camarillo'	'Driscoll Coronation'
Plant			
Habit	flat globose	flat globose	flat
Density	open to medium	open	open
Vigor	weak to medium	medium to strong	weak to medium
Leaf			
Shape in cross section	slightly concave to flat	concave	slightly concave to flat
Interveinal blistering	strong	strong	medium
Glossiness	medium	medium to strong	strong
Number of leaflets	three only	three only	three only
Terminal leaflet margin profile	revolute	revolute	revolute
Terminal leaflet shape of base	acute	rounded	obtuse
Terminal leaflet shape of teeth	rounded	rounded	obtuse
Stipule pubescence	sparse to medium	medium	sparse
Petiole pubescence	very sparse	sparse	very sparse to sparse
Petiole pose of hairs	outwards to downwards	upwards to outward	outwards
Stolon			
Amount	medium	medium	few to medium
Anthocyanin coloration	medium	medium	medium
Thickness	thin to medium	thick	medium
Pubescence	sparse to medium	medium	medium
Inflorescence			
Position relative to foliage	beneath	above	level
Diameter of calyx relative to corolla on secondary flowers	smaller to same size	smaller to same size	smaller to same size
Diameter of inner calyx relative to outer on secondary flowers	smaller	same size	smaller
Spacing of petals	touching to overlapping	overlapping	touching
Fruiting Truss			
Attitude at first picking	semi-erect	semi-erect to prostrate	prostrate

Fruit

Predominant shape	conical	chordate	chordate
Difference in shapes between primary and secondary fruits	very slight to slight	slight to moderate	slight to moderate
Band without achenes	very narrow	very narrow	very narrow
Unevenness of surface	very weak	weak to medium	very weak to weak
Evenness of color uneven	slightly uneven	even	slightly uneven to even
Glossiness	strong	strong	strong
Insertion of achenes	level to above	below to level	level
Insertion of calyx	in a basin to level	in a basin	in a basin
Pose of the calyx segments	spreading	spreading to reflexed	spreading
Size of calyx in relation to fruit on secondary fruit	smaller to same size	smaller	same size to larger
Adherence of calyx	strong	strong	medium
Firmness of flesh	medium to firm	firm	medium
Evenness of flesh color	slightly uneven	slightly uneven	even
Distribution of flesh color	marginal and central	marginal and central	central
Hollow center size	absent to small	absent to small	small to medium
Sweetness	medium to strong	medium	strong
Texture when tasted	medium	medium	fine
Acidity	medium	medium	weak
Time of flowering	medium	medium	medium
Type of bearing	fully everbearing	fully everbearing	fully everbearing

5.3 REACTION TO STRESS, PESTS, AND DISEASE

TABLE 3

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REACTIONS TO STRESS PESTS AND DISEASES FOR 'DRISCOLL JUBILEE',
'DRISCOLL CAMARILLO,' AND 'DRISCOLL CORONATION'

	'Driscoll Jubilee'	'Driscoll Camarillo'	'Driscoll Coronation'
Reaction to Stress			
high pH	moderately resistant	moderately resistant	moderately resistant
high soil salt levels	moderately susceptible	moderately resistant	moderately susceptible
Reaction to Pests			
<i>Tetranychus urticae</i>	moderately susceptible	moderately susceptible	moderately susceptible
<i>Lygus hesperus</i>	susceptible	susceptible	susceptible
Reaction To Diseases			
Botrytis fruit rot	moderately susceptible to moderately resistant	moderately susceptible to moderately resistant	moderately susceptible to moderately resistant
Powdery mildew	susceptible	susceptible to highly susceptible	moderately susceptible
<i>Verticillium</i> wilt	moderately resistant	moderately susceptible	moderately susceptible

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5.4 ISOZYME ANALYSIS

In addition to the morphological description above, the new cultivar 'Driscoll Jubilee' has been analyzed to obtain an indication of its genetic makeup to provide further means for identifying the new variety and distinguishing it from other somewhat similar and/or related strawberry varieties. Specifically, leaf samples of 'Driscoll Jubilee', 'Driscoll Camarillo' and 'Driscoll Coronation' were analyzed by electrophoresis for isozyme patterns of the enzymes phosphoglucoisomerase ("PGI"), leucine aminopeptidase ("LAP") and phosphoglucomutase ("PGM"). See J. Amer. Soc. Hort. Sci. 106:684-687. Isozyme characterization of the three varieties is presented in Table 4, with the letters

representing the banding patterns for each enzyme as designated in the above-identified article.

TABLE 4

5 ISOZYME ANALYSIS FOR 'DRISCOLL JUBILEE', 'DRISCOLL CAMARILLO,' AND
'DRISCOLL CORONATION'

Locus	'Driscoll Jubilee'	'Driscoll Camarillo'	'Driscoll Coronation'
PGI	A1	A2	A3
LAP	B3	B3	B3
PGM	C4	C4	C4